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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/27/2003

Daniel H. Katsin

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3513

7590

03/22/2007

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT

PAPER NUMBER

1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/672,978	KATSIN, DANIEL H.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jenna-Leigh Befumo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 8, 9 and 19-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-7 and 10-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/07</u> . | 6) <input type="checkbox"/> Other: _____   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2007 has been entered.

### ***Response to Amendment***

2. The Amendment filed on February 2, 2007 has been entered. Claims 5 and 13 have been amended. Therefore, the pending claims are 1 – 24. Claims 1 – 4, 8, 9, and 19 – 24 are withdrawn from consideration as being drawn to a nonelected invention.

3. The objection to claim 15 is withdrawn. Instead, the claim is rejected under 35 USC 112 as set forth below.

4. The 35 USC 102 and 103 rejections based on DeMott et al. (6,770,581) are withdrawn since DeMott et al. fails to disclose using microfibers with a channels or furrows. However, a new rejection based on DeMott et al. is set forth below.

5. The declaration under 37 CFR 1.132 filed February 2, 2007 is insufficient to overcome the rejection of claims 5 – 7 and 10 – 18 based upon DeMott et al. However, as set forth above the amendment by itself is sufficient to overcome the rejections over DeMott et al. It is noted that there are a couple of inconsistencies in the declarations that make it insufficient by itself to overcome the rejection. First, it is noted that the declaration uses units of grams/denier/filament to apparently describe linear density. These units are not proper units for linear density. Units of

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grams/denier describe properties such as strength or tenacity. Units of just denier or denier/filament would be appropriate. Further, it is not clear from the description that the split yarn starts out with the same configuration and size as unsplit pet/nylon fiber or with same size as pet fiber. Thus, it is unclear exactly other structural factors might influence the absorbency and cleaning properties. Also, it is noted that the yarns being compared, i.e., the PET/Nylon multicomponent yarns are not fully commensurate in scope with the claimed product, since the claims do not recite that the split microfiber is made from PET and nylon materials, or even that the split microfiber is made from two different types of polymers. And finally, with regards to the sample of the DeMott et al. product provided with the declaration. It is noted that the DeMott et al. sample is clearly a single layer product representative of the single layer product disclosed by DeMott et al. and does not represent the embodiment disclosed by DeMott et al. comprising multiple layers stitched together as shown in Figure 6.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "chamois microfiber" is rejected for the reasons of record.

9. The terms "single-knit terry microfiber" and "double-knit microfiber" are indefinite. The terms "single knit terry" and "double-knit" are terms of art which describe fabric structures. However, the claim is using the term to describe the claimed microfibers. It is unclear if the

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terms should be describing a fabric layer or if the term is being used to describe some special type of microfiber structure.

10. The applicant argues that it would be understood to one having ordinary skill in the art that the terms are being used to describe a fabric structure and not a microfiber structure (response, pages 7 – 8). Specifically, the applicant notes that the terms chamois, single-knit terry, and double-knit are used in the disclosure and would be understood based on the description (page 4, lines 10 – 13). However, while this section uses chamois, single-knit terry and double-knit to describe a type of fabric made with microfibers, this section does not define the terms in the pending claims as meaning fabric layers. In fact, the specification does not describe a chamois, single-knit terry, or double-knit microfiber. Therefore, these terms, which are not defined by the disclosure and not commonly used to define microfibers themselves are indefinite. If the applicant intends the terms to describe a fabric layer then the term “microfiber” should be replaced with the term “fabric” or something similar. There is nothing in the claim that makes it clear that the term is only describing the structure of the fabric layer, and not some a feature of the microfibers used to produce the layer.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 5 – 7 and 10 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMott et al. in view of Goldberg et al. (2005/0044650 A1).

The features of DeMott et al. have been set forth in the previous Office Action. DeMott et al. is drawn to a fabric having a microfiber component and knitted together to form a fabric

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with improved properties. Further, DeMott et al. teaches that it is desired for the fabric to have improved absorbency (column 2, lines 24 – 26). In fact, one embodiment includes a multilayer composite fabric with two outer layers of the knitted velour fabric and an absorbent center layer between the two velour layers (column 11, lines 11 – 17). The layer can be attached together by sewing (column 11, lines 14 – 15). Since the layers are connected by sewing, the layers are only attached at the location where the stitches are inserted through the composite and are not continuously bonded to each other. Also, the fabric can be used as a cleaning cloth (column 10, lines 17 – 18). However, DeMott et al. fails to teach using a split microfiber with groove or channels.

Goldberg et al. is drawn to cleaning fabrics. Goldberg et al. discloses that a split microfiber comprising wedge portions and central portions with segments emanating out from the center have greater cleaning and absorption capability over non-split microfibers due to increased surface area (paragraph 5). Also, the split microfibers with increased surface area provides the ability to remove particles from the surface and better cleaning due to the scraping action of the fibers (paragraph 5). Therefore, it would have been obvious to one having ordinary skill in the art to substitute split microfibers, as taught by Goldberg et al., for the microfibers disclosed by DeMott et al. since Goldberg et al., teaches the split microfibers have improved cleaning and absorption capability over unsplit microfibers. Also, DeMott et al. discloses that improved absorbency is desired in the finished product. Thus, claims 5 – 7 and 10 – 12 are rejected.

Additionally, DeMott et al. fails to disclose using split microfilament yarns in the absorbent center layer. However, DeMott et al. teaches that the treated microfilament fibers used

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in the outer layers have superior characteristics to those of conventional cotton or cotton blends. Further, as set forth above, Goldberg et al. discloses that split microfiber have cleaning and absorption capability. Thus, it would have been obvious to one having ordinary skill in the art to use the split microfilaments, as taught by Goldberg et al., in the absorption layer of the composite taught by DeMott et al. since Goldberg et al. teaches that split microfibers have improved absorbance properties and since DeMott et al. teaches that the microdenier filaments have improved properties as compared to cotton and cotton blend fabrics. Thus, claims 13 and 16 – 18 are rejected.

Further, it would have been obvious to one having ordinary skill in the art to choose a terry or double knit structure for the absorbent fabric, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Thus, one of ordinary skill in the art would be motivated to choose a fabric for the absorbent center which is capable of absorbing and retaining liquid as well as pulling liquid away from the outer layers, via wicking properties, to prevent the surface of the cleaning cloth from becoming too wet or dirty during use. Further, it is noted that the knit fabric disclosed by DeMott et al. reads on the chamois structure in claim 14 and the terry structure in claim 15. Thus, claims 14 and 15 are rejected.

13. Claims 5 – 7 and 10 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeMott et al. in view of Keck et al. (2003/0106568 A1).

The features of DeMott et al. have been set forth in the previous Office Action. DeMott et al. is drawn to a fabric having a microfiber component and knitted together to form a fabric with improved properties. Further, DeMott et al. teaches that it is desired for the fabric to have

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improved absorbency (column 2, lines 24 – 26). In fact, one embodiment includes a multilayer composite fabric with two outer layers of the knitted velour fabric and an absorbent center layer between the two velour layers (column 11, lines 11 – 17). The layer can be attached together by sewing (column 11, lines 14 – 15). Since the layers are connected by sewing, the layers are only attached at the location where the stitches are inserted through the composite and are not continuously bonded to each other. Also, the fabric can be used as a cleaning cloth (column 10, lines 17 – 18). However, DeMott et al. fails to teach using a split microfiber with groove or channels.

Keck et al. is drawn to cleaning fabrics. Keck et al. discloses that multicomponent multilobal shaped fibers have an enhanced dirt, dust, and/or debris pickup and retention as well as enhance liquid retention (paragraph 29). The lobes in the multilobal fibers are separated by depressed regions which allow the fibers to absorb liquids and hold the absorbed liquids in place (paragraph 29). The fibers may be formed by splitting the multicomponent, multilobal fibers to produce split finer fibers which exhibit highly desirable properties (paragraph 62). Therefore, it would have been obvious to one having ordinary skill in the art to substitute split multicomponent, multilobal fiber, as taught by Keck et al., for the microfibers disclosed by DeMott et al. since Keck et al., teaches the split, multilobal fibers have enhanced dirt, dust, and/or debris pickup and retention as well as enhanced liquid retention. Also, DeMott et al. discloses that improved absorbency is desired in the finished product. Thus, claims 5 – 7 and 10 – 12 are rejected.

Additionally, DeMott et al. fails to disclose using split microfilament yarns in the absorbent center layer. However, DeMott et al. teaches that the treated microfilament fibers used



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in the outer layers have superior characteristics to those of conventional cotton or cotton blends. Further, as set forth above, Keck et al. discloses that split multilobal, fine denier fibers have enhanced liquid retention. Thus, it would have been obvious to one having ordinary skill in the art to use the split multilobal fine denier filaments, as taught by Keck et al., in the absorption layer of the composite taught by DeMott et al. since Keck et al. teaches that split fine denier multilobal fibers have enhanced liquid retention and since DeMott et al. teaches that the microdenier filaments have improved properties as compared to cotton and cotton blend fabrics. Thus, claims 13 and 16 – 18 are rejected.

Further, it would have been obvious to one having ordinary skill in the art to choose a terry or double knit structure for the absorbent fabric, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Thus, one of ordinary skill in the art would be motivated to choose a fabric for the absorbent center which is capable of absorbing and retaining liquid as well as pulling liquid away from the outer layers, via wicking properties, to prevent the surface of the cleaning cloth from becoming too wet or dirty during use. Further, it is noted that the knit fabric disclosed by DeMott et al. reads on the chamois structure in claim 14 and the terry structure in claim 15. Thus, claims 14 and 15 are rejected.

#### ***Response to Arguments***

14. The applicant's arguments filed on February 2, 2007 are not persuasive. It is noted that the applicant argues that DeMott et al. fails to teach the separate, individual layer structure, which are coupled together such that the layers are only connected at limited points where the coupling means are located, as now recited (response, page 8). The applicant basis this argument

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on the sample provided with the declaration of the fabric disclosed by DeMott et al. The sample provided by the applicant is only a single layer fabric, described by DeMott et al. which can be used by itself or with additional layers, and does not represent the embodiment shown in Figure 6 of DeMott et al. Thus, the sample provided is not sufficient to show that the composite structure described in Figure 6 by DeMott et al. would not have the claimed structure. In fact, DeMott et al. teaches using the same method of coupling, and only provides sewing in certain portions of the fabric. Thus, the fabrics would be separate layers where there is no coupling means. Therefore, the rejection is maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlb

March 14, 2007

  
JENNA BEFUMO  
PRIMARY EXAMINER